

1 **WHAT IS CLAIMED IS:**

2 1. An induction heating apparatus for sealing various sizes of containers,
3 and the induction heating apparatus comprising:

4 a concentrator having

5 a base with a center;

6 a central core extending from the base at the center;

7 multiple outside walls integrally extending from the base and
8 arranged around the central core; and

9 multiple inside walls are formed from the base between the
10 central core and the outside walls; and

11 a coil assembly attached to the concentrator between the central core and
12 the outside walls, and the coil assembly comprising

13 multiple coil devices attached to the concentrator between the
14 central core and the outside walls, and each coil device having

15 a bobbin having a central tube with two ends, and a
16 flange formed at each end of the central tube; and

17 an insulated electrical conductor wound around the
18 central tube of the bobbin between the flanges;

19 wherein the multiple inside walls are formed between two of the
20 adjacent coil devices.

21 2. The induction heating apparatus as claimed in claim 1, wherein the
22 base has four sector bases that are separated from each other with an angular
23 displacement of 45°.

24 3. The induction heating apparatus as claimed in claim 2, wherein an

- 1 insulation tape is wound around each insulated electrical conductor of each coil
- 2 device.